



PERCo-Web

Controllers Firmware

Update Instructions

CE EAC

Update of controller's internal software for PERCo-Web system

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1 INTRODUCTION

The **"Firmware Update Program"** with the firmware, Web-interface and fonts files which are included in the **"Firmwares of PERCo controllers"** are designed for updating of the internal software (firmware) and formatting of the *PERCo* controllers.

The current version of the program can be downloaded from the *PERCo* website, at www.perco.ru. software is located in the **Support > Software > Controllers internal software > Firmwares for PERCo controllers**.

Unzip the `Burn.zip` file after downloading. The archive contains¹:

- `*\Firmware Update Program` – folder with the **"Firmware Update Program"**;
- `*\Firmwares` – folder with firmware, Web-interface and fonts files;
- this manual.

2 FIRMWARE UPDATING PROCEDURE



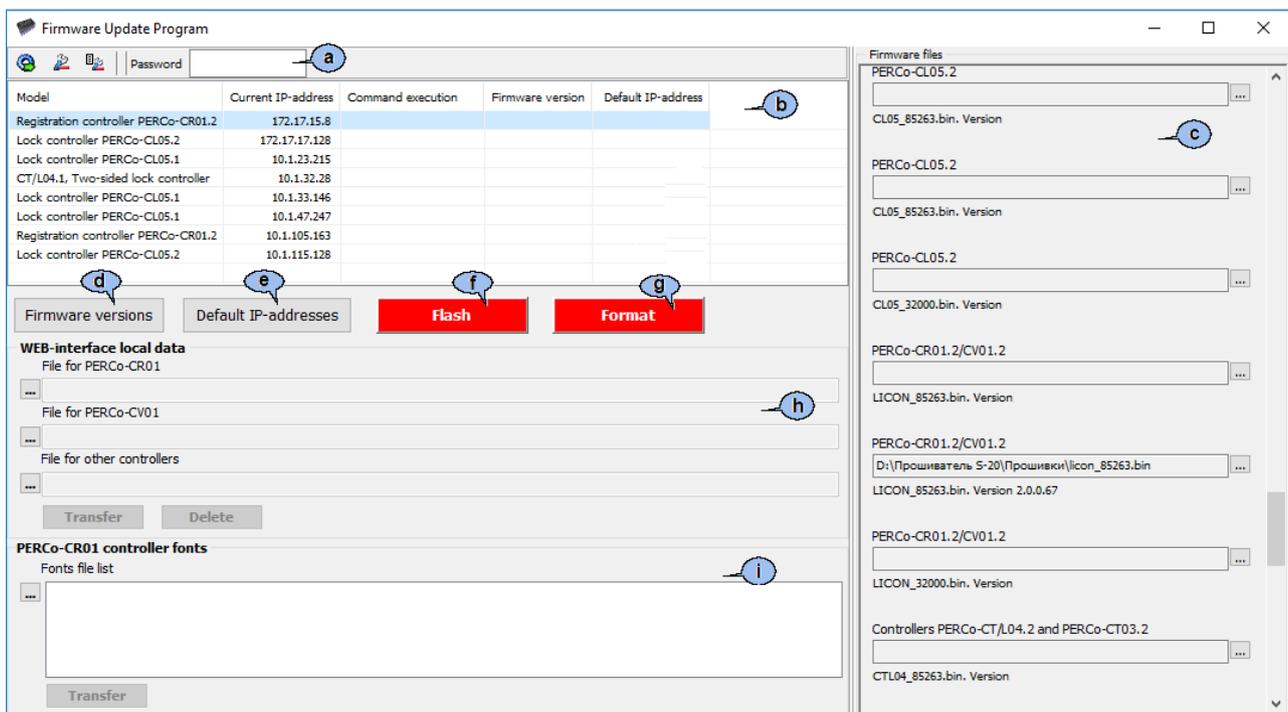
Attention!

The flashing procedure and the subsequent formatting (see Table 2) of controllers takes from a few minutes to half an hour, it depends on the total number of controllers. You will not be able to pass through the controllers during this period. This procedure is recommended to be carried out during the minimum system load (for example, in the evening or early in the morning) or independently for each controller, group of controllers.

2.1 Starting the program and description of the working window

To update the internal software of the system controllers:

1. Disable flash controllers from the *PERCo-Web* system server, exit **SL01 (SL02) Local software**, in the case of using the Local software.
2. Run the **"Firmware Update Program"**. To do this, run the file: `*\Firmware Update Program\CtrlsUpdater_EN.exe`. The **"Firmware Update Program"** window will appear:



¹ Hereinafter: "*" corresponds to the name and path to the folder where the archive was unpacked.

- a. Toolbar:
 -  **Update the list of controllers** button allows you to open the **Search controllers** window where you can search for controllers in the network and add them to the program working area.
 -  **Remove from the list** button allows you to remove selected controllers from the list.
 -  **Clear list** button allows you to remove all controllers from the program working area.
 - Password** – field for entering the password for access to the controllers, if necessary.
- b. Program working area - is a list of controllers that should be upgraded.
- c. **Firmware files** panel allows you to specify the location of the firmware files on the computer (separately for different models of controllers).
- d. **Firmware version** button allows you to receive data about the firmware version of the controller. The process of execution will be displayed in the **Command Execution** column and the installed firmware version will be displayed in the **software version** column of the program working area.
- e. **Default IP addresses** button allows you to receive default network settings of the controllers that have been set during production. The process of execution will be displayed in the **Command Execution** column, and default IP addresses will be displayed in the **Default IP address** column of the program working area.



Note:

Clicking the **Firmware version** and **Default IP address** buttons will send the request to all controllers indicated in the program working area.

- f. **Flash** button allows you to start the process of upgrading the internal software of controllers that are displayed in the program working area.
- g. **Format** button allows you to start the process of formatting memory of the controllers that are displayed in the program working area.
- h. **Web-interface Local Data** panel allows you to specify the location of the Web interface files and load them into the controllers. The panel is only available for "CT/L04 Controllers" (see Table 1).

Controller registration file (CR01) – this field allows you to specify the location of Web-interface files for **PERCo-CR01 LICON** controllers located on HDD.

WTL monitoring file (CV01) – this field allows you to specify the location of the Web-interface files for the WTL monitoring (**CV01**) on the computer disk.

Other – this field allows you to specify the location of the Web interface files on the computer disk for **CT/L04** controllers (see Table 1).

Transfer – the button allows to transfer the specified Web-interface files to controllers.

Delete – the button allows you to delete Web-interface files from controllers.

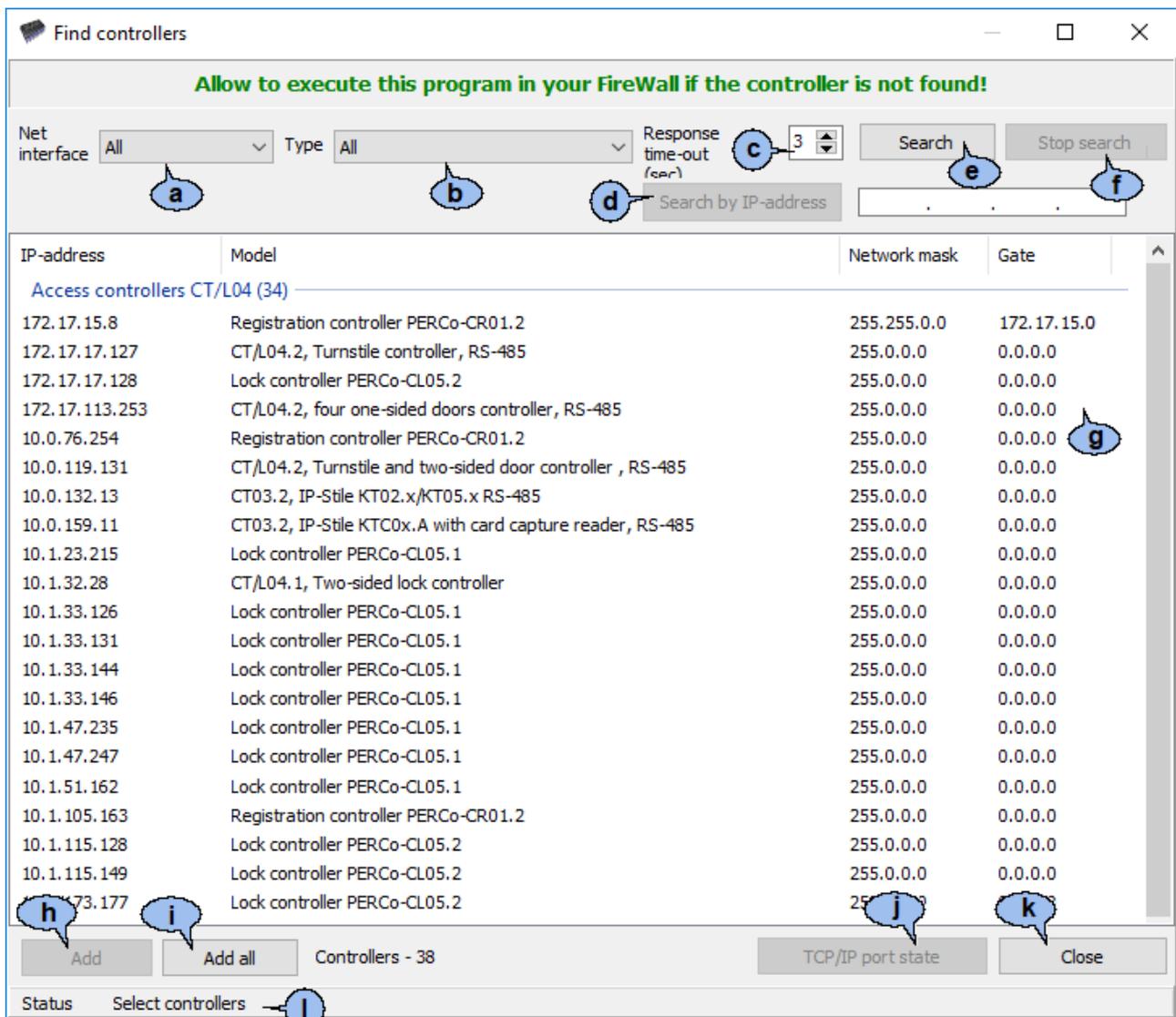
- i. **CR01 controller fonts** panel allows you to specify the location and upload font files to the controllers. The panel is only available for **CR01 LICON** registration controllers.

Font files list – this field allows you to specify the location of font files on the HDD.

Transfer – the button allows you to transfer the specified font files to controllers.

2.2 Creating a list of controllers

1. To create a list of controllers, click the  button on the program toolbar. **Search controller** window will appear and it will automatically start searching controllers in the network. Found controllers will be displayed in the working area of the window, grouped by type:



- a. The **Network interface** drop down menu allows you to select the subnet address where you would like to search for controllers.
- b. **Type** drop-down menu allows you to select the type of controllers you are looking for. Classification of types of controllers and IP-Stile is provided in the Table 1 below.
- c. **Time-out period** counter allows you to determine the controller response waiting period.
- d. **Search by IP Address** button allows you to search for the controller by using a known IP address (entered in the next field).
- e. **Search** button allows you to search for controllers within the network.
- f. **Stop search** button allows you to stop the search controllers.
- g. Window working area. You can select multiple controllers in the working area at the same time by using the **Shift** or **Ctrl** buttons on the keyboard.
- h. **Add** button allows you to add selected controllers to the list of controllers in the program working area.
- i. **Add all** button allows you to add all found controllers to the list of controllers in the program working area.
- j. **TCP/IP port Status** button allows you to get diagnostic information about the port status of the selected controller in the working area.
- k. **Close** button closes the **Search for controller's** window.
- l. Status bar.

2. If necessary, use the **Network interface** and **Type** drop-down menu (see Table 1) to select the subnet and type of controllers you are looking for. Both menus are set to **All** at the initial start of the program. Click the **Search** button to restart the search procedure after you have changed the selection within the lists.
3. Once all the necessary controllers are found, click the **Add all** button in order to add all the controllers to the program working area. All detected controllers will appear in the program working area.
4. If you want to add only some of the found controllers, then select them in the window working area and click **Add** button. Selected controllers will appear in the program working area.
5. Click the **Close** button. **Search for controller's** window will be closed.

2.3 Identification of the firmware version and IP address

1. If necessary, enter the password in the **Password** field of the program toolbar in order to access controllers.



Attention!

It is impossible to update the firmware without identification of the default version of the firmware and default IP addresses of the controllers.

2. Click the **Firmware versions** button to get the firmware version of controllers displayed in the program working area. Upon receiving a successful response, the **Software version** column will display the information about the firmware version.
3. Click the **Default IP address** button in order to request the IP address, Gateway IP address, and subnet mask of the controllers that are displayed in the program working area. Upon receiving a successful response, the **Default IP address** column will display the information about the network configuration.

Model	Current IP-address	Command execution	Firmware version	Default IP-address
Registration controller PERCo-CR01.2	172.17.15.8	Default IP-address - OK	2.0.0.63	10.1.105.162
Lock controller PERCo-CL05.2	172.17.17.128	Default IP-address - OK	1.0.0.63	10.1.115.150
Lock controller PERCo-CL05.1	10.1.23.215	Default IP-address - OK	14.0.1.19	10.1.23.215
CT/L04.1, Two-sided lock controller	10.1.32.28	Default IP-address - OK	12.0.9.20	10.1.32.28
Lock controller PERCo-CL05.1	10.1.33.146	Default IP-address - OK	14.0.5.19	10.1.33.146
Lock controller PERCo-CL05.1	10.1.47.247	Default IP-address - OK	14.0.5.19	10.1.47.247
Registration controller PERCo-CR01.2	10.1.105.163	Default IP-address - OK	2.0.0.62	10.1.105.163
Lock controller PERCo-CL05.2	10.1.115.128	Default IP-address - OK	1.0.0.67	10.1.115.128

2.4 Firmware files

Table 1. Types and models of controllers and the names of the firmware files

Type	Purpose	Controller model	Firmware file name
«Access controllers»	Turnstile / lock controllers	CT/L04.1	CTL04_1.bin
	Universal controller	CT/L04.2	ctl04_85263.bin
	Registration controllers	CR01 LICON	Licon.bin
		CR01.2 LICON	licon_85263.bin
	Lock controllers	CL05.1	CL05_1.bin
CL05.2		cl05_85263.bin	
"IP-Style built-in controllers»	IP-Style with CT03.1 built-in controller	KT0x.x/ KTC01.x	CTL04_CT03_1.bin
		KR05.x	CTL04_KR05_01.bin
	IP-Style with CT03.2 built-in controller	KT0x.x/ KTC01.x	ctl04_85263.bin

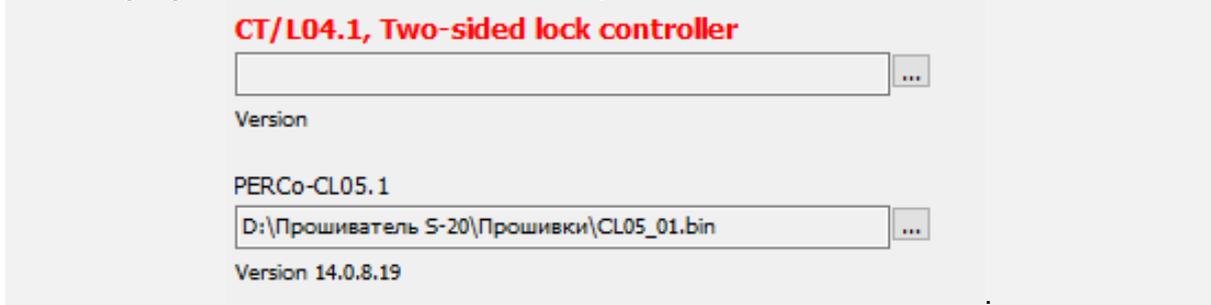
2.5 Flashing of controllers

1. Specify the location of the firmware files on the **Firmware files** panel. To do this, click the button  to the right of the field with the model name and specify the location of the firmware file for this model on the HDD. Firmware files are located in the **Firmwares* folder. Names of the files contain the names of the models of the correspondent controllers (see Table 1).



Note:

If the location of the firmware file has not been specified, clicking the **Flash** button will open a window with a message that the firmware file is not defined and controllers model name will be highlighted red on the **Firmware files** panel:



2. Click the **Flash** button in order to start uploading the software to the controllers. The **Command execution** column displays the number of bytes loaded into the controller memory. **Firmware Update - OK** message will appear in the **Command Execution** column upon successful completion of the process.



Attention!

Update of the controller firmware will be finished in 1 minute after the **Firmware Update - OK** message appeared in the **Command Execution** column

3. Use the **Firmware version** button in order to check the update of the firmware version. The **Software version** column will display the new firmware version number:
4. The flashing of the firmware is finished.

3 FORMATTING AND LOADING DATA

In some cases, you may need to format the internal memory of the controllers after the flashing procedure. For some types of controllers, it is necessary to load web-interface and fonts files into the controller memory after formatting (see Table 2).

Table 2. Further steps after updating the firmware

Controller model	Firmware update	Formatting (see 3.1)	It is necessary to load the Web- interface files (see 3.2)	It is necessary to load fonts (see 3.3)
CL05.1, CT/L04.1 IPS built-in controllers CT03.1	from versions earlier than x.x.x.12 up to versions x.x.x.12 and newer	Yes	Yes	No
	from version x.x.x.12 up to the newest	Yes No	Yes	No
CR01 LICON	Any	Yes	Yes	Yes
		No	No	No
Other	Any	Yes	No	No
		No		

3.1 Formatting controllers



Attention!

Formatting will delete the configuration, access card list, and event log data from the controllers.

Click the **Format** button to start formatting all controllers that are displayed in the program working area. The message **OK - Formatting controller** will appear in the field with the name of the controller of the **Command Execution** column after successful completion of the process.

3.2 Loading files of the Web-interface (for CT/L04.1 and IP-Stile built-in controllers CT03.1)

1. Specify the location of the Web-interface data file in the **Web-interface Local Data** panel. To do this, click the button located to the left of the corresponding fields and specify the location of the Web-interface files on the HDD. Web-interface files are located in the `*\Firmware` folder. The file name indicates the interface language (see Table 3).

Table 3. Names of the Web-interface files

Controller model	Names of the firmware files	Language of the interface
CR01 LICON	CR01_lang_ru_xx.bin	Russian
	CR01_lang_en_xx.bin	English
CT/L04, CL05, KT0x.x KTC01.x, KR05.x	lang_ru_xx.bin	Russian
	lang_en_xx.bin	English
	lang_de_xx.bin	German

2. Click the **Transfer** button on the **Web-interface Local Data** panel. The message **-OK Loading Web--interface Data** will appear in the field with the name of the controller of the **Command Execution** column after successful completion of the process.
3. If necessary, load the second language of the Web-interface in the same way.

3.3 Loading fonts for CR01 (CR01.2) LICON



Note:

Loading of fonts is only necessary for the *CR01 LICON (CR01.2 LICON)* controllers after they have been formatted.

1. Remove other types of controllers from the list of controllers in the program working area. To do this, select these controllers and click button on the toolbar. The selected controllers will be deleted.
2. Specify the location of the font files by using the **Fonts** panel. To do this, click the button located to the left of the **Font Files List** field and specify the location of the folder with font files (UTFarial26.bin, UTFarial39.bin, UTFgazeta54.bin, UTFgazeta104.bin, UTFariaBD32.bin) on the HDD. Font files are located in the `*\Firmwares` folder.
3. Click **Transfer** button on the **Fonts** panel. A **Message** window will appear every time after the font is successfully uploaded into the controller. Click **OK** button to close each window. The message about the successful completion of loading the necessary fonts will appear at the end of the fourth transmission. The message **Loading Font – OK** will appear in the **Command Execution** column.
4. Formatting and loading data is finished.



Note:

It is necessary to transfer the configuration and cards lists to the controllers after formatting procedure.

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